

IN THE TITLE

After "FOR" insert -- ELECTROPORATION --.

IN THE CLAIMS

Please cancel claims 3, 4, 31, 32, 39, 45 and 46.

Please amend claims 1; 26, 28, 29, 33, 34, 36, 41, 42 and 43 as follows:

1. (Amended) An electrode apparatus for the application of electric fields to a selected portion of a living body, comprising:
- support means;
- an array of multiple opposed pairs of electrodes mounted on said support means in spaced relation to one another, at least one of said pairs of electrodes having a needle configuration for penetrating tissue for *in vivo* electroporation of cells of the tissue; and
- an electric pulse generator for applying pulses of high amplitude electric signals to [the] selected opposed pairs of said electrodes proportionate to the distance between said electrodes for electroporation of cells between said electrodes.

2. (Amended) An apparatus according to Claim 1 wherein one of said needle [electrode] electrodes having a cannula for the introduction of molecules into said tissue.

- 4²⁶. (Amended) An apparatus according to Claim [4] 1 wherein said support means comprises a [collar] hub mounted on [said] a shaft and said electrodes are needles in a circular array supported on said [collar] hub.

3 ~~28~~ (Amended) An apparatus according to Claim [1] 2 wherein said support means comprises a [collar] hub mounted on said support and said electrodes are a circular array of needles supported on said [collar] hub.

7 ~~29~~ (Amended) An electrode apparatus [according to Claim 1] for the application of electric fields to a selected portion of a living body, comprising:

support means;

an array of electrodes mounted on said support means in spaced relation to one another, at least a plurality of said electrodes having a needle configuration for penetrating tissue for *in vivo* electroporation of cells of the tissue; and

an electric pulse generator for applying pulses of high amplitude electric signals to the electrodes proportionate to the distance between said electrodes for electroporation of cells between said electrodes, wherein said array of electrodes comprises a circular array of needle electrodes, and a switch assembly for selectively changing the polarity of opposing ones of said electrodes.

9 ~~33~~ (Amended) An apparatus according to Claim [1] 29 wherein said [support means] electrodes comprises a pair of tubular needles for inserting into selected tissue, and [said electrodes are] conductors insertable through said needles into said tissue.

B4

10

34. (Amended)

9

An apparatus according to Claim 33 wherein said needles are removable over said [electrodes] conductors.

11

35. (Amended)

A needle electrode assembly of needle electrodes [apparatus] for the application of electric fields to a selected portion of a living body, comprising:

a first combination needle electrode for insertion into selected tissue for injecting molecules into said tissue and for functioning as a first electrode;

a second combination of multiple needle electrodes for insertion into said selected tissue spaced from said first electrode, at least one of said multiple electrodes [for] functioning as a second electrode in relation to said first electrode; and

B5

means for selectively connecting multiple pairs of said needle electrodes in pairs of opposed polarity to an electric pulse generator for applying pulses of high amplitude electric signals to the electrodes proportionate to the distance between said electrodes for *in vivo* electroporation of cells between said electrodes.

12

37. (Amended)

11

An apparatus according to Claim 36 wherein said first and one of said second needle electrodes comprises a pair of tubular needles for inserting into selected tissue, and said electrodes are separable conductors insertable through said needles into said tissue.

¹⁴
40. (Amended) An apparatus according to Claim ¹¹[39]~~36~~ further comprising switching means selectively positionable for connecting alternate opposite pairs of electrodes to said pulse generator.

¹⁵
41. (Amended) An electrode apparatus for the application of electric fields to a selected portion of a living body, comprising:

an array of multiple pairs of electrodes, at least [a] multiple pairs of said electrodes having a needle configuration for penetrating selected tissue in spaced relation for *in vivo* electroporation of cells of the tissue; and

¹⁵
an electric pulse generator for selectively applying pulses of high amplitude electric signals to [the] selected opposed pairs of said electrodes proportionate to the distance between said selected pairs of electrodes for electroporation of cells between said selected pairs of electrodes.

¹⁶
42. (Amended) An apparatus according to Claim ¹⁵[40]~~41~~ wherein said [first and second] pairs of needle electrodes comprises a pair of tubular needles for inserting into selected tissue, and [said electrodes are] separable conductors insertable through said needles into said tissue.

¹⁷
43. (Amended) An apparatus according to Claim ¹⁶~~42~~ wherein said needles are removable over said [electrodes] conductors.

Please add new claims 47-50 as follows:

47. An apparatus according to Claim 41 wherein said selected pairs of electrodes define corners of a rectangle.

48. An apparatus according to Claim 29 wherein said a switch assembly is connected for selectively changing the polarity of opposing pairs of said electrodes.

BT

49. An apparatus according to Claim 48 wherein said pairs of electrodes define corners of a rectangle.

50. An apparatus according to Claim 36 wherein said pairs of electrodes define corners of a rectangle.

REMARKS

The objections to the drawing is noted and will be corrected with the submission of formal drawings in the near future.

Claims 3, 4, 31, 32, 39, 45 and 46 have been cancelled. New claims 47-50 have been added.

Claims 1, 2, 26-30, 33-38, and 40-44 and 47-50 remain herein for consideration.